

**WEST**

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L4: Entry 218 of 228

File: DWPI

Dec 3, 1993

DERWENT-ACC-NO: 1994-012513  
 DERWENT-WEEK: 199402  
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TITLE: Liq. crystal resin compsn. for electrical or car parts or bearings - contg. calcium titanate whiskers and talc for good sliding properties heat resistance etc.

## PATENT-ASSIGNEE:

ASSIGNEE	CODE
TORAY IND INC	TORA

PRIORITY-DATA: 1992JP-0126380 (May 19, 1992)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 05320483 A	December 3, 1993	N/A	010	C08L067/00

## APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP05320483A	May 19, 1992	1992JP-0126380	N/A

INT-CL (IPC): C08G 63/60; C08K 3/34; C08K 7/08; C08L 67/00

ABSTRACTED-PUB-NO: JP05320483A

## BASIC-ABSTRACT:

A liq. crystalline polyester resin compsn. comprises 100 pts.wt. of liq. crystalline polyester (A) and 5-300 pts.wt. of (B) calcium titanate whisker having pH of 6-8 and talc having average particle dia. 2.0-6.0 micron. The resin compsn. has a melt viscosity of 15-80 Pa.sec. (A) Comprises p-hydroxy benzoate unit (I) -OR10- (II), and OCR2CO (IV) and opt. -OCH2CH2O (III). It has a liq. crystal-starting pt. of 330 deg.C. or less and forms an anisotropic fused phase.

R1 = 4,4'-biphenyl, (VI), 1,4-phenylene (opt. substd. by phenyl or tert. butyl), R1 = 2,6- or 2,7-naphthalene, XII or XIII; or (XIII); 1,3- or 1,4-phenylene, 4,4-biphenyl, 2,6-naphthalene, R2 = (XV) or (XIII); X = H or Cl; and ((II)+(III)) = (IV) (in moles). The ratio of the potassium titanate whisker to the talc is pref. 30/70-95/5 by wt.. The potassium titanate whisker is potassium 6-titanate.

USE/ADVANTAGE - The resin compsn. is suitable for electrical and electronic parts, car parts, audio parts, various kinds of mechanical parts, etc., esp. bearing material. The resin compsn. has a small anisotropy, good dimensional accuracy, sliding properties, thin film-moulding properties, heat resistance, mechanical characteristics, etc..

In an example, 100 pts.wt. thermotropic liq. crystalline polymer with units (I):(II):(III):(IV) in ratio 80:7.5:12.5:20 (R1 = biphenyl; R2 = p-phenylene) having a liq. crystal-starting pt. of 293 deg.C. a m.pt. of 314 deg.C. a melt viscosity of 50 Pa.sec., 45 pts.wt. potassium 6-titanate having a pH of 6.9 and 5 pts.wt. talc having average particle dia. of 3.0 micron were kneaded and pelletised at 290-300 deg.. The obtd. compsn. had a melt viscosity of 40 Pa.sec.. The pellets were moulded into a test piece. The test piece had a Izod impact

strength of 10.0 (5.5 for a control) kgfcm/cm, good dimensional accuracy, 56(90) micron, good sliding properties and appearance. The control did not contain talc.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: LIQUID CRYSTAL RESIN COMPOSITION ELECTRIC CAR PART BEARING CONTAIN CALCIUM TITANATE WHISKER TALC SLIDE PROPERTIES HEAT RESISTANCE

DERWENT-CLASS: A23 E32

CPI-CODES: A05-E01A2; A08-R06B; A08-R09; A09-A02A; E35-K04;

CHEMICAL-CODES:

Chemical Indexing M3 \*01\*

Fragmentation Code

A119 A422 A940 A980 C108 C730 C801 C802 C803 C804

C805 C807 M411 M782 M903 M904 Q010 Q020 Q130

Specific Compounds

05311M

Chemical Indexing M3 \*02\*

Fragmentation Code

A212 A940 B114 B701 B712 B720 B831 C108 C802 C803

C804 C805 C807 M411 M782 M903 M904 M910 Q010 Q020

Q130

Specific Compounds

01541M

UNLINKED-DERWENT-REGISTRY-NUMBERS: 1541U

POLYMER-MULTIPUNCH-CODES-AND-KEY-SERIALS:

Key Serials: 0016 0054 0057 0060 0063 0066 0072 0075 0078 0147 0150 0153 0165 0168 0205  
0207 0209 0224 0226 1288 1291 1407 1454 1456 1458 1462 1464 2211 2220 2513 2541 2542  
2560 2590 2600 2604 2617 2649 2651 2654 2658 2737 2744 2749 2829 3089 3259 3300

Multipunch Codes: 017 02& 06- 062 063 07& 08& 09& 09- 10& 10- 143 144 15- 151 155 157  
162 163 164 166 167 17& 17- 18& 18- 19& 19- 20& 229 308 331 393 42& 435 437 44& 479  
50& 512 516 519 541 542 551 556 57& 575 592 593 596 597 599 60& 623 627 629 631 654 672

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1994-005889